

# John Vaughan Thompson, F.L.S.

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(Communicated by T. G. VALLANCE)

CAMPBELL, HUGH. John Vaughan Thompson, F.L.S. *Proc. Linn. Soc. N.S.W.* 111 (2), 1989: 45-64.

John Vaughan Thompson (1779-1847) was a surgeon in the British Army Medical Service who made his name as a 'gentleman naturalist'. He became a Fellow of the Linnean Society in 1810 in recognition of his work in botany, but his great contribution to science was his discovery of metamorphosis in the Crustacea: a discovery which was received with disbelief and hostility in the 1830s, and not fully accepted until after Thompson died. He spent the last eleven years of his life in New South Wales, eight of them in charge of Convict and Military Medical Services. He failed as an administrator, and most Australian historians have not only blamed him unduly for his failure but have also neglected the scientific achievements which more than compensate for it. His life is an interesting study of the difficulties faced by an amateur scientist working alone without the support of personal wealth or powerful friends.

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## INTRODUCTION — GIVING J. V. THOMPSON HIS DUE

John Vaughan Thompson (1779-1847) distinguished himself as a zoologist and botanist while quietly earning his living as an army surgeon in England, the West Indies, Mauritius, Madagascar, Ireland and Australia. He has been treated generously by his recent English biographers, who refer to his achievements before he went to Australia. Australians have been less kind to him: if they have noticed him at all, it is only in passing. For instance, although he spent his last eleven years in New South Wales, eight of them in charge of the convict and military medical services in the colony, the *ADB* contains no entry about him in his own right: he is mentioned only as a sort of *bête noire* in other men's lives.

It is true that he failed as a colonial administrator, and only natural that local historians should have reported accordingly. But most did not inquire further, and so overlooked both his zealous service during forty-five years as an army surgeon and his wide-ranging work in natural history, especially his discoveries about marine invertebrates. What is more, the writer believes they made their unflattering picture even worse by blaming him too much for his difficulties in New South Wales. As a result, biographers sympathetic to Thompson have usually thought it best to dismiss his years there in a single sentence and concentrate on the rest of his life. This paper is an attempt to repair the large gaps and unfair biases in what has hitherto been written about him.

There are other reasons, too, for the discrepancies. First, Thompson was inconsistent in himself: illness and bitterness changed him during the course of his service in New South Wales. Second, earlier biographers do not mention the Colonial Office files, reported for the first time in this paper, which contain a number of details of his personal life. Hence, they do not explain some of his actions. Third, several of his discoveries in natural history soon became such common knowledge that his later biographers forgot his part in discovering them.

Wheeler (1970) pointed out that most of Thompson's important achievements were recognized too late for him to enjoy the praise: he had that sort of luck all his life. By his own account, fortune first failed him in 1778, the year before he was born, when his father lost all his property in North America. In one part of a 'memorial' seeking a grant

of land in New South Wales, Thompson (1835) explained the setback: 'Memorialist's father . . . lost to his family by attachment to the Loyalist cause and the unfortunate result of the American War, a grant of land to the amount of 4,000 acres situated on the Mohawk River beyond Albany, . . . together with a good deal of other property, houses, &c at New York and Long Island, and a considerable stock of firing provided for the army under Sir John Vaughan, for which he was contractor — the above grants being given as the reward of services as an officer of the 96th Regiment at the taking of Pt Havana [sic] &c was totally lost by the precipitation with which he was obliged to fly when the King's troops took their final departure from Sandy Hook'.\*

It was typical of Thompson to expect the government to compensate him for the loss his Loyalist father had suffered in the American War of Independence more than fifty years earlier — a loss he had probably heard of many times as a boy. But, as we shall see, to the end of his life, he remained surprisingly naive in political matters.

On 19 November 1779, a year after his father fled from Sandy Hook, John Vaughan Thompson was born at Berwick-on-Tweed. His mother was Jane Hall (*International Genealogical Index*, 1981).

Thompson grew up there, and gave that address as late as 1817. But he left home much earlier: the son of a dispossessed Loyalist army officer had to make his own way in the world. He studied medicine at the University of Edinburgh in the sessions of 1797-8 and 1798-9, enrolling in anatomy, surgery, obstetrics, chemistry and botany (Edinb. Univ., 1797-8); and on 3 March 1799, soon after his nineteenth birthday, he was appointed Assistant Surgeon to the Prince of Wales Fencibles. Without taking his degree, he accompanied the regiment to Gibraltar in December 1799.

## THE WEST INDIES, 1800-1809

### Appointment as Army Surgeon

On 3 July 1800 he became Assistant Surgeon of the 37th Foot, and embarked with them for the West Indies and Guiana to take part in the war against the French and Dutch: records show that he was engaged in the taking of Berbice and Demerara in Guiana. On 25 June 1803 he was promoted to Surgeon in the regiment. During his six years residence in Trinidad, with occasional visits to Grenada and St Vincent, he found time, while carrying out his military duties, to study the natural history of subjects as diverse as land crabs and ginger.

There is evidence that he paid at least one visit to England during his service in the West Indies. When he asked Lord Seaforth, F.L.S. and recently retired Governor of Barbados, to present his paper about *Kaempferia* to the Linnean Society, he headed his covering letter 'London, April 7th, 1807' (Linn. Soc., 1807). He took advantage of being in England that year to engage in other literary activity: he published his 'Catalogue of Plants in the vicinity of Berwick-on-Tweed' (a small octavo of 132 pages) (Thompson, 1807a), and had papers on *Kaempferia* (Thompson, 1807b) and *Piper* (Thompson, 1808) read to the Linnean Society.

### Early Interest in Botany

Britten (1912), reviewing his first publication, wrote: 'Thompson must early have acquired considerable proficiency in botany. His *Catalogue of Plants . . . Berwick upon Tweed* was prepared before he left England — i.e. at or before the age of twenty — and

\* The *Encyclopedia Americana* (1983) explains the reference to the capture of Havana in 1762; the *DNB* (1900a) entry on Sir John Vaughan gives an account of his service on the British side in the American War of Independence and his appointment as Governor of Berwick-on-Tweed, where Thompson's father appears to have joined him, a possible connection by a marriage in 1765 being suggested by the *International Genealogical Index* (1981); and the *EB* gives an account of the British flight from Sandy Hook in 1778.

shows a very complete knowledge of the plants of that region and of the literature of the period: the pretty coloured group which adorns the title page and a plate (also coloured) and dissections show him to have been a capable artist'.

In the same article, Britten points out that a paper on British birds has been wrongly attributed to Thompson (*DNB*, 1900b) because of a false entry in Royal Society (1871).

Thompson left the West Indies for good and returned to England in 1809. A year earlier he had been made an Associate of the Linnean Society, and in November 1809, four members signed the following certificate: 'John Vaughan Thompson, Esq., Surgeon of his Majesties [sic] 37th Regiment of Foot, & A.L.S., a Gentleman well versed in the study of Botany, being desirous of becoming a Fellow of the Linnean Society of London, we, the undersigned do from our personal knowledge beg leave to recommend him as likely to become worthy of that honour' (Linn. Soc., 1809).\*

He was elected F.L.S. on 6 February 1810. Stebbing (1910), writing on the centenary of the occasion, described his election as 'prophetic insight', recognizing that Thompson's most important work was still to come.

On 3 March 1812, two of his papers were read to the Society — one about an unusual Pouched Rat he had observed in Trinidad (Thompson, 1813) and the other, reported by Wheeler (1970), on his observations of the genus *Myrti* there.

#### SERVICE IN MAURITIUS AND MADAGASCAR, 1812-1816

Shortly afterwards, he was posted to Mauritius and Madagascar. On Christmas Day, 1812, he was appointed staff surgeon, though his official duties in the Mascarene Islands are not now known. It has been said that in two consecutive years he worked on 'introducing vaccine inoculation to Madagascar', and that for some time he was officially styled 'Government Agent for Madagascar'. In his 1835 letter seeking a land grant (Thompson, 1835), he himself refers to his appointment instructions and his journal 'sent to Governor Sir R. T. Farquhar and now, he presumes, in the Colonial Office'. Neither the instructions nor the journal have been found.

He claims (Thompson, 1835) that: 'amongst the important accessions to the culture of the Mauritius, [he] added 8 varieties of that estimable food, the plaintain, 10 valuable varieties of banana, 12 varieties of sugar cane, most of them vastly superior to those in common cultivation, 9 varieties of tobacco, 7 varieties of the indigo plant and 11 varieties of ordinary and upland rice'.

He also writes of: 'His efficient service as Civil Agent at Madagascar for the years 1814-15 a. During the period of his Agency he put a total stop to the traffic in slaves from those parts under his control. b. Repressed several efforts of rival chiefs to disturb the general tranquility [sic] by war. c. Introduced vaccine inoculation amongst the natives. d. Completed a survey of the extensive harbours of Loquez without loss of a single life. e. Paved the way for a friendly intercourse with the natives by a kind and generous treatment diametrically opposed to that of the French, our predecessors. f. Introduced and taught the cultivation of the potato and several other culinary vegetables'.

Vaughan (1953) refers to a 1902 work by Grandidier in which Thompson was credited with introducing *Albizia lebbek* ('bois noir') to the treeless plains of Madagascar, having included a sack of seeds among his presents to the island's king, Radama I. The reference is further evidence that Thompson was engaged in some sort of diplomatic service in Madagascar.

\* Apparently wishing, on second thoughts, to show their wholehearted endorsement of an Associate, the sponsors struck out 'likely to become'.



Thompson says that eventually he was 'attacked by the formidable remittent fever of the country which obliged him to relinquish a very lucrative post to return to Europe at great expense and finally to go on the half pay of his then rank of surgeon'.

In his informative 'land grant' letter, he also makes a particular point of mentioning that he had 'at the request of Governor Farquhar, drawn up and published at the Mauritius a systematic catalogue of all the plants cultivated in the three Government Gardens of Pamplemousses, Mon Plaisir and Reduit, which cost [him] much labour, numerous journeys and a great deal of patient investigation'.

The title page of the *Catalogue of Exotic Plants Introduced to Mauritius* (Thompson?, 1816) does not show Thompson as the author. R. E. Vaughan (1953), however, based an article entitled *A Forgotten Work of John Vaughan Thompson* on yet another letter, which Thompson had written about the *Catalogue* in 1838. In that letter, he claimed to be the author of the work, which had in fact been published anonymously in 1816, shortly after he had left for England. He asserts that someone had suppressed the title page naming him as author, which had been ready for the press when he sailed, and replaced it with another. The 1838 letter was an appeal to the President of 'La Société d'Histoire Naturelle de Maurice' asking the Society to credit Thompson with the authorship. In the event, the President did nothing to advance Thompson's claim, partly because he thought that the *Catalogue*, based as it was on the Linnaean '*système sexuel*', was out of date by 1838.

Regardless of authorship, 'this was the first work on the plants of the island to be published locally, and is useful in listing the dates of introduction of many plants grown in the Botanic Gardens and elsewhere. It shows Thompson's interest in the importation of useful plants, an interest he shared with many other colonists of the time' (Wheeler, 1970). In fact, it contains references to a number of plants introduced by Thompson himself. Barnwell (1941) lists among these the honeysuckle, the jonquil, Guernsey and other lilies, Madagascar arrowroot and tobacco, weeping willow, walnut, chestnut, horse-chestnut and American lime; he also records that Thompson's name is inscribed on the Liénard Obelisk in the Pamplemousses Garden. But this first taste of having his scientific efforts and their worth doubted probably influenced Thompson's later decision to publish his own work.

Britten (1912) reports that during this period he also 'sent dried plants to Robert Brown, which are in the National Herbarium', later to become part of the British Museum (Natural History).

Reviewing his service between 1812 and 1816, Thompson later complained of the 'loss of property at the Madagascar and the Mauritius, being involved in the latter by the burning of Port Louis\* and the extensive bankrupcies [sic] which occurred shortly after his departure for Europe on sick leave', and of the 'loss and expense entailed by the great length to which the regnal[?] of the Madagascar was extended'.

When Thompson left Mauritius, he was thirty-seven. In the year of his departure, he suffered physically from the onset of malaria, financially from the fire at Port Louis, and psychologically from lack of recognition of his efforts. And his hardship was compounded because illness forced him to go on half pay for two years from 10 June 1817 (Johnston, 1917).

He had the consolation, however, of knowing that his paper on *Mus anomalis*, which had been read before he left England, had been published by the Linnean Society in 1813 (Thompson, 1813). The paper, accompanied by a plate which illustrates his

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\* 'A fire broke out in the commercial section of Port Louis [in 1815]. Efforts to extinguish it were unsuccessful and all the principal shops and warehouses were destroyed. Seven hundred houses were burned down, and millions of rupees of property lost. [Governor] Farquhar acted quickly and efficiently. People were clothed and fed and no one died of hunger, although many were ruined financially . . .' (Mannick, 1979).



meticulous drawing, contains a revealing statement of his views about scientific classification: 'But when we examine into nature with due attention, we find she delights to mock the vain efforts of mortals to shackle and confine her within the bounds of generic characters, which are found to run so into each other as to render all attempts at method more or less imperfect. This animal must remain an anomaly in the family'.

His curiosity about natural history was not dampened. He had taken advantage of his time in Mauritius to study 'the famous extinct Mascarene birds', although he waited until 1829 to publish his *Contributions towards the natural history of the Dodo* . . . (Thompson, 1829). More immediately, as Wheeler (1970) records, on the way home he observed south of Madagascar 'a puzzling luminosity in the sea. He trailed a muslin hoop over the stern of the ship and caught a profusion of small animals hitherto invisible in the water'. Wheeler goes on to note that 'Thompson has been credited with being the first to use a plankton net, and there is little doubt that his use of it in late July or August 1816 was his own idea entirely: but he was anticipated by John Cranch, who used a similar tow net on [Captain Tuckey's voyage to] the River Zaire (or Congo) in April 1816'.

Back in Berwick-on-Tweed on half pay, Thompson returned to medical school. He enrolled for the 1816-17 session at the University of Edinburgh in Clinical Medicine and Materia Medica. He paid 4/6d for lectures in Materia Medica from Professor James Home; among others on his page of the fees list were two Royal Navy surgeons and another army surgeon (Edinb. Univ., 1816).

#### ARMY MEDICAL SERVICE AND MARINE STUDIES AT CORK, 1819-1835

The next record of Thompson's movements appears when he was restored to full pay (on exchange) on 25 May 1819 (Johnston, 1917). By that time he was in Cork, and for the ensuing eleven years he remained on full pay in posts such as district medical officer at Cork and surgeon of the Cork Recruiting District. There is evidence that in 1819 he gave a course of lectures at the Cork Institute on the science of Botany (Wheeler, 1975).

Presumably he married soon after his return to England in 1816. The advice of his departure from Mauritius in June 1816 (*Gazette de l'Isle Maurice*, 1816) suggests that he had no wife then. Previous biographers have said nothing about his private life and family; Wheeler (1970), the latest, said, 'It is not known whether he married'. But it is a subject on which Thompson's (1835) revealing letter throws some light. In it, he describes himself as 'having a young family of six children, four girls and two boys, whose prospects have been materially affected' by the reverses in North America and Mauritius which he mentioned in the letter. Tantalizingly, the shipping record shows that, when he sailed for Hobart Town in 1835, he was accompanied by his wife and four children, the eldest sixteen (Colonial Office, 1836a): for some reason, two of the girls (probably older than 16) did not go.

Thompson remained at Cork until 1835. During his years there he made those discoveries of the life histories of the marine invertebrates in the Cove [Cobh] for which he is chiefly remembered. He announced the principal ones in the following order during the brief period between 1827 and 1830:

- the discovery of *Pentacrinus europaeus* (Thompson, 1827);
- the discovery of metamorphosis in the development of most Crustacea (Thompson, 1828);
- the classification and life history of barnacles (Thompson, 1830a); and
- the discovery of the animals he called *Polyzoa* (Thompson, 1830b).

As the *DNB* (1900b) has it, 'Our present conceptions of the structure of these forms, of

their zoological position, and of the metamorphoses which they undergo, date from Thompson's papers'.

His achievements resulted from his appreciation of the need for practical observation, his capacity for detecting and recording detail and, above all, his ability to realize the implications of what he saw. They were all the more remarkable because he worked alone, without the support of a university or other centre for scientific development, or the collaboration, it seems, of even a single colleague. Hence, for want of people to rally round him in his lifetime, his name is not well known today, even among specialists in marine zoology. Although his discoveries about marine invertebrates received a good deal of attention when he announced them, biologists soon began to take them for granted: and if scientists subsequently wondered who made those discoveries, they often attributed them to later workers.

Thompson announced his discoveries in a series of memoirs which he published at his own expense. Although nowhere does he say so, it is likely that his experience with his *Catalogue of Exotic Plants in Mauritius* made him wary of trusting his discoveries to others until he had published them.

### *Pentacrinus europaeus*

The *DNB* (1900b), in its reference to his first discovery, the *Memoir on Pentacrinus europaeus* (Thompson, 1827), records that it: 'announced the presence of a stalked crinoid in the seas of the British Isles: until then crinoids (feather stars or sea-lilies) were known only from the West Indies. Thompson also revealed that the crinoidea were really 'radiata'; and (as shown more fully by a second paper in *New Philosophical Transactions*, Edinburgh 1836) that this *pentacrinus* was really the young stage of the *antedon*, or feather star'.

The discovery of this animal and Thompson's conclusions about the stages in its life history drew the attention of zoologists in France, Germany and elsewhere to his work, and many of his succeeding papers were translated or abstracted into journals abroad.

Thompson announced his other principal discoveries in a series of five scarce pamphlets, now reprinted in facsimile, which he published under the title of *Zoological Researches and Illustrations* (Thompson, 1828-34).

In the light of Thompson's later appointment to Sydney, it is interesting to note that a copy of the first *Researches* was sent to New South Wales, endorsed 'W. S. McLeay, Esq., with the author's compliments'. 'He was also the donor of seeds of cotton to A. McLeay in Sydney, as shown by the Seed Book' (Fletcher, 1920). In fact, Thompson corresponded regularly — and evidently was on familiar terms — with Alexander Macleay, the Treasurer of the Linnean Society of London from 1798 until 1825, and thereafter Colonial Secretary of New South Wales (Wheeler, 1970). Macleay, of course, was one of the four who had nominated him for F.L.S. in 1809.

### Metamorphosis of Crustacea

Thompson published the first issue of his *Researches* at Cork in September 1828, price 3s.6d. 'It announced what is probably his most important contribution to zoology: the discovery that certain planktonic forms of crustacean, then known by the generic name *Zoea*, undergo changes of form (metamorphoses) until they become recognizable as the young of the European edible crab (*Cancer pagurus*)' (Wheeler, 1970).

The full title of the first memoir was: *On the Metamorphoses of the Crustacea, and on Zoea, exposing their singular structure and demonstrating that they are not, as has been supposed, a peculiar genus, but the Larva of Crustacea!!* (Thompson, 1828). Wheeler (1975) points out that 'the two exclamation marks as well as his text showed that he appreciated the revolutionary

nature of his discovery, but it is doubtful whether he could have anticipated the furore that his important discovery was to invoke among the zoological establishment'.

Wheeler (1975) goes on to explain how Thompson's discovery challenged one of the basic tenets of contemporary systematic zoology: 'The essence of the controversy lay in the distinction made by systematists between the classes *Insecta* and *Crustacea*. The insects, as was easy to observe, went through a series of metamorphoses to emerge as an imago, or perfect insect. The crustaceans, less easy to observe, were not known to develop through metamorphosis; consequently they were assumed not to do so. This difference was one of the principal characters distinguishing the classes.'

Wheeler's summary of Thompson's memoir is simple and elegant: 'Thompson's demolition of the character was based on practical observation. In 1816, while on the return journey from Mauritius, he had . . . captured small planktonic animals, which resembled species of the crustacean genus *Zoea*, described by earlier naturalists from mid-ocean. In the spring of 1822, Thompson "to his great surprise" found a considerable abundance of *Zoëas* in the harbour of Cove [Cobh], and in 1823 he succeeded in keeping a large specimen in fresh sea water between 14 May and 15 June, when it died in the process of casting its skin. He noted that the form of the *Zoea* was totally changed and that the limbs that had disengaged from the skin resembled those of the decapod crustaceans (crabs, lobsters, shrimps, etc.) in having four long walking legs and an anterior pair armed with pincers. The final confirmation was obtained four years later, in June 1827, when Thompson succeeded in hatching the eggs of the edible crab (*Cancer pagurus*) to find *zoea* larvae. From these observations he asserted that the decapod crustaceans generally undergo metamorphosis during their development. Not only did his announcement render invalid one of the major distinctions between the *Crustacea* and the *Insecta*, it accounted for the anomalous *Zoea* specimens of earlier naturalists, and it also explained previously unaccountable phenomena such as the migration to the sea of land crabs which he had observed in the West Indies'.

In fact, Thompson used his observations of land crabs to support his theory, pointing out that even such land dwellers must lay their eggs in the sea and give their young a perilous life there, so that they may undergo metamorphosis before going ashore in their adult form.

He points out, too, that fifty years earlier, in a work published at Haarlem, Slabber (1778) claimed that he had observed metamorphosis in *Zoea*. Thompson swiftly disposes of that claim: 'The metamorphosis, however, which this observer thought he witnessed is of so different a description that we must either suppose him to have fallen into some error or else there may be Crustacea which pass through some other forms.'

He concludes, 'from much experience', that Slabber 'lost his *Zoëas* in changing the sea water, and that the new form came from the added portion'.

Nevertheless, in his own first memoir, Thompson, too, had 'failed to prove the complete metamorphic cycle because his *zoea* died in the process of change; it was only by comparing them [sic] with ova from a berried female crab that he was able to deduce the relationship' (Wheeler, 1970). What is more, his announcement was accompanied by a second memoir 'On the genus *Mysis*' (Thompson, 1828), in which he showed that the mysidacean crustaceans hatch in a form very similar to that of the adult and undergo only slight metamorphosis, thus tending to contradict his assertions about metamorphosis as a characteristic of most crustaceans. And both memoirs appeared only months before the German scientist Rathke, unaware of Thompson's announcements, published his own observations on the development of the crayfish (*Potamobius*, formerly *Astacus*), now known to be one of the few exceptions to the general rule propounded by Thompson. Rathke's work demonstrated that the young crayfish hatch at a late stage of development and do not undergo metamorphosis.



One might ask why Thompson was in such a hurry to publish when his conclusion was not entirely proved and was supported by only a single observation. The answer lies in the comment made by Stebbing in relation to another of Thompson's discoveries, the *Polyzoa*, where an observation made in 1823 was not published for seven years, and so was not credited to him. 'As we all know, recognition of our discoveries has to date, not from the time when they were made, but from the time when they were published' (Stebbing, 1910). Thompson knew that others were studying marine invertebrates, and did not want to risk being beaten. As it happened, he was alone in detecting metamorphosis, and could have afforded to wait.

But given Thompson's reliance on deduction in his first memoir, it is not surprising that many established zoologists treated his claim of metamorphosis in the Crustacea with 'distinct and often derisory doubt'. They resented the overturning of the taxonomy in use at the time, as expounded by Leach and Cuvier. Nevertheless, Thompson continued to announce fresh examples to prove his hypothesis. By the end of the decade, Rathke and others had published admissions that their scepticism had been misplaced and that Thompson was correct (Wheeler, 1975).

In the middle of 1830, Thompson's military career blossomed briefly. On 22 July he was promoted to the rank of Deputy Inspector General of Hospitals (the next step on the promotion ladder for surgeons) as a reward for his long and zealous service. The promotion promised him an income sufficient both to support his family in the style he thought fitting and to continue publishing the results of his research. Then, as suddenly as his fortunes rose, they fell (Johnston, 1917). On 9th December 1830 he was retired to half pay, along with 13 other officers of his rank who experienced the same meteoric rise and fall. At age 51, with a wife and six children (under fifteen?), he saw his income drop from 30 shillings a day to 17. Not only did the reduction threaten the prospects of his family, but it also made it impossible for him to go on publishing his *Zoological Researches* without help. Some might think he should have been able to bring up a family on £300 a year. Thompson did not.

Consequently, the proceedings of a meeting of the Zoological Society of London a month later, on 11 January 1831, (Zool. Soc., 1831), show that it received 'an Address by Mr J. V. Thompson, Esq., "To the members of the Zoological Society, and the Zoologists of the United Kingdom in general", soliciting such support, by subscription, as may enable him to continue, without further loss, his *Zoological Researches and Illustrations*. This address is printed, together with a list of the subjects of some of the preceding memoirs, on the cover of the fourth number of the *Researches*, which was at the same time laid on the table'. Stebbing, writing eighty years later, referred to 'a pathetic appeal to the scientific world to furnish him with 150 subscribers, as his private income would no longer bear the sacrifice till then entailed by the publication of his researches' (Stebbing, 1910).

Thompson's financial setback did not prevent him from announcing further evidence of metamorphosis in the Crustacea, in response to a complaint from Vigors (1830) in the *Zoological Journal* that his conclusions had been too sweeping. His letter to the Secretary of the Zoological Society dated 'Cork, Dec. 16, 1830', is reported thus (Zool. Soc., 1830: internal quotations are from Thompson): 'In it, Mr Thompson urges, in support of the universality of a metamorphosis among the *Crustacea*, that he has ascertained the newly hatched animal to be a *Zoea* in eight genera of the *Brachyura*, viz. *Cancer*, *Carcinus*, *Portunus*, *Eriphia*, *Gecarcinua*, *Thelphusa?*, *Pinnotheres*, and *Inachus*; and in seven Macrourous genera, viz. *Pagurus*, . . . and *Astacus*. "These embrace all our most familiar native genera of the *Decapoda*". The Lobster, or *Astacus Marinus*, Mr Thompson states, "does actually undergo a metamorphosis, but less in degree than in any of the other enumerated genera, in its first stage being what I should call a modified *Zoea* . . .; in short, such an animal as would never be considered what it really is, was it not obtained

by hatching the spawn of the Lobster". In the other indigenous species of *Astacus*, the River Crawfish, it would appear from the excellent treatise of M. Rathke on the developement [sic] of its eggs, that the young are hatched in a form according with that of the fully grown animal. Mr Thompson, however, suspects that some source of error may exist in these observations. "If it should be found otherwise, it can only be regarded as one solitary exception to the generality of metamorphoses, and will render it necessary to consider these two animals for the future as the types of two distinct genera" . . .'

This letter is an interesting demonstration of Thompson's confidence in the accuracy of his observations: he did not hesitate to question the opinions and observations of established and respected naturalists when they conflicted with his own.

### The Cirripedes

Thompson's third important achievement in marine biology was his discovery that cirripeds are *Crustacea*: in the system proposed by Cuvier, they had been designated as a class of the *Mollusca*. He published his discovery in the third number of *Zoological Researches*, Memoir iv: *On the Cirripedes or Barnacles; demonstrating their deceptive character; the extraordinary Metamorphosis they undergo, and the Class of Animals to which they indisputably belong*' (Thompson, 1830a).

Wheeler (1975: internal quotation is from Thompson and Darwin) explains the significance of the discovery thus: 'Again this presented a revolutionary concept as far as the higher classification of barnacles was concerned. Among the barnacles two major groups are well known, the goose or ship's barnacles, which look somewhat like small, light coloured mussels on a stalk, and the acorn barnacles, which are so abundant on rock and timber on shore. Earlier naturalists had been much exercised about the true relationships of these animals.

'Thompson stumbled on the correct solution to their relationship by, as he put it, "the result of chance rather than of design and industry". In 1823, crossing on the ferry at Passage Cove, he trailed his small muslin net behind the boat to catch a quantity of marine zooplankton. Among them were translucent elliptical animals a tenth of an inch in length, evidently crustaceans but of a form undescribed by earlier naturalists. On 1 May 1826 he collected further specimens, and in the light of his knowledge that larval decapod crustaceans were entirely dissimilar to the adults kept them in order to observe any metamorphosis which might take place. He had the satisfaction on 8 May of seeing some of these elliptical animals metamorphose, and found them firmly attached to the bottom of the glass container, perfectly recognizable as young acorn barnacles. On 10 May another of these larvae was seen to cast its outer skin and settle to the bottom as a barnacle. In 1835 Thompson described the larvae of the goose barnacle, which he found on a ship's bottom in 1830.

'Again, though Thompson had firmly placed the barnacles within the Crustacea and showed that they too enjoyed a planktonic larval stage before settling, established zoologists were slow to accept his findings. However, Darwin (1851) in his monograph on the group recognized Thompson's contribution as a "capital discovery".'

Of course, Thompson would not have 'stumbled on the correct solution' had he not been looking with the eyes of one who *knew* that metamorphoses occurred in Crustacea.

The Royal Society's *Catalogue of Scientific Papers 1800-1863* (Royal Society, 1871) records some of the reprints of Thompson's papers which had appeared by 1831 in English and French journals.

An illustration of the way Thompson's name cropped up incidentally in scientific discussions in the early 1830s comes from the proceedings of the Zoological Society on 11 January 1831 (Zool. Soc., 1831). A question was raised at this meeting about the cause of phosphorescence in sea water. 'It was remarked that Commerson and others have

attributed the phenomenon described to putrefaction of animal matters, . . . Sir Joseph Banks, Dr Macartney, and others, on the contrary, have referred it to the presence of marine animals, principally Crustacea; and the existence of such, as the cause of this appearance, has been recently insisted on by Mr J. V. Thompson.'

### Polyzoa

The last of Thompson's four important discoveries was that of *Polyzoa*, a new Animal discovered as an Inhabitant of some zoophytes (Thompson, 1830b). He showed that the term zoophytes had been used to cover a mixture of animals superficially alike but essentially different in structure. Relying on Wheeler again: '[*Polyzoa*] had been formerly included as part of a heterogeneous collection of enigmatic invertebrates, the so-called zoophytes; but he showed that they were distinct from the colonial hydroids and the ascidians, with which they had been sometimes confused. The term *Polyzoa* received considerable usage, especially in Great Britain, but it was eventually dropped in favour of *Bryozoa*, which had been proposed almost contemporaneously' (Wheeler, 1970; supported by Stebbing, 1910).

Because of Thompson's preoccupation with natural history, it is not surprising to find that he left only one paper on medical science. Although he was a prolific writer and despite more than forty years in the Army Medical Department, his only recorded publication in the field is an 1832 pamphlet entitled *The Pestilential Cholera Unmasked . . .* Wheeler (1970) describes it as 'a work devoted to diagnosis and treatment of cholera, but exhibiting little understanding of the causative factors involved in the disease'. Perhaps the critic expected too much. At the time, no one else understood such matters, either. In fact, the pamphlet conveyed the prevailing wisdom about the disease and it was topical: cholera had been spreading westward from Asia during the 1820s, and the first major outbreak in the British Isles occurred in 1832.

Wheeler (1975) reports in passing that in 1833 Thompson's collection of invertebrates was purchased by the Royal College of Surgeons, Dublin. Unfortunately, the collection has not survived. In the light of his financial setback at the end of 1830, one wonders what domestic crisis forced Thompson to sell it.

### SCIENTIFIC DISPUTES AND FINANCIAL DIFFICULTIES

Meanwhile, Thompson's conflict with the zoological establishment in London became more and more acrimonious as his new concepts threatened to overturn fundamental systematics. As Wheeler (1970) says, 'His correspondence and published writings of the time suggest a man impatient with the conservatism of his opponents, and eventually embittered by their opposition . . .' Elsewhere, Wheeler (1975) says: 'His tendency to write in a forthright style cannot have endeared him to his opponents.'

Meanwhile, too, Thompson's money problems became more and more embarrassing. On 8 May 1835 he informed the Treasurer of the Linnean Society that he was 'unable to send the large amount due' and 'craved the indulgence . . . in the hands of the Committee of remitting the payments in special cases of disability'. He pointed out that he had not been attending meetings or receiving copies of the Society's 'valuable Transactions' while his fees (at the time £3 per annum) were in arrears. He explained that he was claiming the indulgence ' . . . on account of the pecuniary loss sustained by the publication of my *Zoological Researches* and the great expense incurred by the prosecution of those discoveries by being obliged to keep up an establishment on the sea-side during a great part of the period, & the disbursements consequent on boat hire travelling back and forward, &c' (Linn. Soc., 1835).

According to its minutes for 22 May 1835, Council 'resolved that the request be



acceded to on account of his high merit as a naturalist and the papers he had supplied for the Transactions of the Society'.

In the middle of dealing with both his financial difficulties and a bitter scientific controversy, Thompson was removed from the scene. Colonial authorities in London had for some time been anxious to reduce the cost of the separated convict medical services and military medical services in New South Wales and Van Diemens Land. Early in 1835, the Government decided to combine both services in each colony under the supervision of senior Army surgeons (Colonial Office, 1834). Accordingly, in June 1835, John Vaughan Thompson was offered an appointment as Deputy Inspector-General of Hospitals in New South Wales (Colonial Office, 1835a). Distressed as he was, he could not refuse the offer, since it meant he would be restored to full pay from 7 August 1835 (Johnston, 1917).

Only money could have taken him so far abroad; and it could not have done so at a worse time, because scepticism about his *Zoological Researches* was at its height. In the very week that Thompson was offered his new appointment, his most implacable opponent, J. O. Westwood, F.L.S., secretary of the Entomological Society and through that office committed to retaining the old taxonomy, attacked Thompson's work by presenting a long paper to the Royal Society *On the supposed existence of Metamorphoses in the Crustacea*. Westwood (1835) used special cases and the opinions of a number of respected authorities to deny outright the evidence that Thompson presented. He was quite wrong, but the error did not make his criticism any less credible to many of his listeners and readers, who shared his misconceptions. Patronizingly, he pointed out that 'the accuracy of [Thompson's] beautiful figures deserves the highest praise' and summed up by saying, 'Although disagreeing with Mr Thompson in respect to his theory, I have already stated that his figures are very faithful delineations of nature'. In all else, he set out to discredit Thompson.

Perhaps that paper spurred others, some of them also severe critics, to take Thompson seriously and make their own observations. Nevertheless, it took some time to verify Thompson's work, and it was not until the end of the decade that impartial zoologists repeated his observations and admitted that he was right (Wheeler, 1975).

Not that Thompson himself had slackened in his efforts to substantiate his discoveries. He had been continuing his research and his writing, and a number of his papers appeared in various journals in 1835 and 1836 (Royal Society, 1871). Some of them appeared even in the heart of the enemy's territory, the *Entomological Magazine* (Royal Society, 1871).

#### DEPUTY INSPECTOR-GENERAL OF HOSPITALS, NEW SOUTH WALES, 1836-1844

##### **Surgeon-Superintendent of the 'Boadicea'**

In June 1835, however, Thompson had the more pressing problem of arranging passage to New South Wales for himself, his wife and four children. In his fifty-sixth year he was about to begin a new career in a new land, and turn his back on the researches which had occupied him for the past 20 years.

By the beginning of August 1835 he had settled most of his affairs in Ireland and returned to London. He left unpaid a seemingly trivial account for goods to the value of £6.10.7½ with Mrs Dwyer of 89 Grand Parade, Cork, which was to haunt him for years (Colonial Office, 1841a). On 7 August 1835, the day he returned to full pay, he wrote a memorial to the Secretary of State for the Colonies, seeking a grant of land in New South Wales as a recompense for losses he and his father had suffered in government

service (Thompson, 1835)\*. The Secretary of State replied that the regulations did not allow him to make the grant (Colonial Office, 1835b).

To minimize his expenses, Thompson secured the post of Surgeon-Superintendent on the emigrant ship *Boadicea* taking 200 unmarried females and about 60 people in family groups to Van Diemens Land. For this service he received £50 and his own free passage, but he had to pay what seems an exorbitant price of £159 for cabin passages for his wife and children. On 8 August 1835 he signed his contract with the Secretary of the Emigration Committee, undertaking to be available from 26 September 'to inspect the emigrants and witness their promissory notes' (Colonial Office, 1835c). The *Boadicea* sailed on 1 October 1835, and arrived in Hobart Town on 4 February 1836. It is an extraordinary coincidence that Charles Darwin, who would later praise Thompson's work on barnacles, sailed into the Derwent River next day on the *Beagle*. There is no evidence that Thompson and Darwin met, although they were in Hobart Town at the same time for more than a fortnight.

There were no deaths on the 128-day voyage. The Surgeon-Superintendent reported that: 'I am quite confident that it was to [the] regulation of their diet, the withdrawal of their wine while in the Torrid Zone and the promptitude with which every case of sickness was met that under Divine Providence I am indebted for the preservation of very many lives — not that we escaped our share of sickness nor the occurrence of several very hopeless cases & almost miraculous escapes'† (Colonial Office, 1836b).

After almost a month waiting in Hobart Town, Thompson and his family secured a passage to Sydney on the *North Briton*, arriving on 15 March 1836 (*Herald*, 1836). He took up his new duties in the Office of Deputy Inspector General of the Convict [Civil] and Military Hospitals in the Colony of New South Wales on 1 April.

Sir James McGrigor, head of the Army Medical Department since 1815, was well aware of the qualities of his senior officers, and proved a good friend to Thompson in all that was to follow. He had sent Thompson his instructions on 20 August 1835 (Colonial Office, 1835d). The Deputy Inspector General's mission was to manage Convict and Military Hospitals as a single service, as far as possible under the Hospital Regulations of the Army. He was to give particular attention to keeping down costs, to controlling the requisition and issuing of medicines and making regular returns about their use, and to regulating the access by civil servants and other free residents to hospital services.

With uncanny prescience, McGrigor (Colonial Office, 1835d) advised Thompson against possible pitfalls: 'In the allotment of the duties civil and military you will take care as much as possible to preserve the harmony necessary to good order; and in assimilating the duties you will not unnecessarily disturb the Colonial Surgeons' appointments, and on all occasions obtain the approbation of the Governor and proper authorities in recommending any change of duty among inferior officers and servants'.

### Early Administrative Problems

In 'preserving harmony' and 'not disturbing the Colonial Surgeons', Thompson failed utterly. Accordingly, his previous biographers have either discreetly ignored the New South Wales part of his career or written about that to the exclusion of all else.

Part of the reason for his failure was undoubtedly the forthright and abrasive personality that he had already revealed in his scientific disputes and in his rejection of an offensive complaint about rations from the sea-lawyers on the *Boadicea* (Colonial Office,

\* This memorial has been mentioned already as the source of hitherto unknown information about Thompson's family and his service in Mauritius.

† In fact, it is the frankness and directness of Thompson's reports on the emigrants that first attracted the writer's attention to him. He seemed so determined to face opposition head on, and to do it in writing, (Campbell, 1988) that I was compelled to find out what happened to him afterwards — and before.

1836d). In 1838, Governor Gipps said of him: 'Dr Thompson, whatever may be his other merits, was not the man calculated to carry successfully into effect a measure in itself unpalatable to his subordinates, being on the one hand wanting in blandness of manner or conciliatory address, before which opposition might have gradually given way, and on the other in that firmness and decision of purpose which would have overruled it' (Colonial Office, 1838a).

But as McGrigor wrote: 'His situation was no easy one for any man of common patience and temper. It was perhaps to be expected that an officer experienced in the duties, sent out to control expenditure, diminish emoluments and supervise the manner in which the several officers discharged their duties would be unacceptable, let his address and manner be what they would' (Colonial Office, 1839).

First, he had to serve three masters: the Governor and Secretary of State for the Colonies in matters relating to the Convict [Civil] establishment, the Secretary at War in matters relating to the Army, and the Director General of the Army Medical Service in regard to professional reports and returns. What is more, running through his dealings with all three was an undercurrent of resentment from officials in the Colonial Office about the intrusion of the Army Medical Service and the War Office into their domain. Hence, the Governor and his London superiors seemed to take some pleasure in pointing out Thompson's failings to McGrigor, who was responsible for appointing him and for disciplining him thereafter.

Second, through an incredible bureaucratic bungle, he arrived in Sydney to find that Dr James Bowman, who had joined the colonial medical service in 1817 and had been its head since 1819, was still in that position, and no arrangements had been made to remove him from it. Consequently, one of the first recommendations Thompson had to make was that his predecessor should be stood down. In the event, it took two years for the despatches necessary to terminate Bowman's appointment to pass back and forth between Sydney and London. Meanwhile, Bowman remained on strength without duties, devoting himself to his extensive private practice and the pastoral schemes of his father-in-law, John Macarthur. Even without those supplements, his unearned salary was some £200 greater than the pay for Thompson's active Army rank.

Third, the other colonial surgeons, especially James Mitchell, who had been on good terms with Bowman, also resented Thompson's arrival. His lack of a medical degree did not go unnoticed, and the colonial surgeons were aware of his proposals to replace them by army surgeons at lower rates of pay when their posts became vacant. The security of their lucrative private practices was also threatened by their new liability to transfer. And Thompson was less than tactful towards them. He was critical, in reports to Sir James McGrigor, of their private practices, their drinking, and their failure to cooperate with him.

Fourth, to cap Thompson's difficulties, the Governor reported at the end of 1836 that 'Mr Thompson has not as yet presented any distinct and comprehensive arrangement for . . . hospitals in this Colony, chiefly I apprehend from the infirm state of health under which he has for some time been suffering' (Colonial Office, 1836c).

In fact, Thompson had devoted a good deal of time to pointing out that his travelling allowance did not cover the cost of the journeys he was required to make; comparing his own pay and allowances with those of other senior officials; confronting the colonial surgeons; and complaining to London about the obstacles the latter were putting in his path.

To put the matter bluntly, the duties Thompson was expected to carry out, and the circumstances in which he found himself, were beyond the powers of an elderly, ailing, quarrelsome and forthright army surgeon who had been five years retired, and who in



any case would rather have been working at his microscope. The consequences were inevitable.

Nevertheless, Sir James McGrigor in London argued in his support: 'Mr Thompson complains that he has met with vexatious obstruction from some of the Colonial Medical Officers at the outset; perhaps it is but natural that some of these gentlemen should, at first, feel a new control irksome, and complain of more duty being imposed on them than under the old system so as to interfere with lucrative private practice or their avocations as agriculturalists . . .

'I am not prepared in every instance to support the tone of Mr Thompson's querulous correspondence, and I have so expressed my disapprobation of it that I trust this zealous and experienced officer . . . will henceforth be most respectful in all his correspondence . . . and I am of the opinion that henceforth no infirmity of temper will be betrayed by the Deputy Inspector General of Hospitals.

'In justice, however, to Mr Thompson I ought to say that during a long period of service I have ever found him an able and honourable officer, one who has constantly evinced the most indefatigable zeal on every service on which he has been employed, acting with discretion, prudence and forbearance' (Colonial Office, 1837a).

Despite this testimonial and promise for the future, in September 1837 a dispute known as 'the Mitchell case' made public a conflict which had been festering since Thompson's arrival and which dragged on for almost four years. Briefly, Mitchell, who had been in rancorous disagreement with Thompson from the outset, claimed to have misunderstood an instruction, and so failed to attend as medical officer at a flogging. Consequently the Governor dismissed him for disobeying an order. In response to public support for Mitchell, Thompson inflamed the debate by writing a letter to a newspaper; in it he referred selectively to some comments made about Mitchell by the Governor. It is true that the Governor had more than once criticized the way the colonial surgeons, including Mitchell, responded to Thompson's instructions; but he had criticized the tone and nature of the instructions themselves almost as often. Mitchell sued Thompson for libel, and won. In the meantime, he had appealed against his dismissal.

The appeal led eventually to an inquiry by Governor Gipps: as a result, Mitchell was reinstated in 1841 for one day, for the sole purpose of allowing him to retire without a stain on his name. Although the finding supported Thompson's rank and office, he suffered more than Mitchell, who in fact had little to lose. But Thompson was left a broken man, after yet another acrimonious conflict which had simply deepened his bitterness and disillusionment.

An account of the quarrel between Thompson and Mitchell, distinctly unsympathetic to Thompson, is provided by McIntosh (1956). It contains a good deal of accurate detail but does not, in the writer's opinion, sufficiently recognize the problems Thompson faced in dealing with an entrenched Sydney establishment. A good summary of the evidence is given in Gipps' Report on his Review of the case (Colonial Office, 1841b).

Thompson made other administrative mistakes, too. Soon after his arrival, he was taken to task for writing personal letters to the Secretary of State for the Colonies about mismanagement by certain officers of the colony who were outside his jurisdiction. He was told to stop his 'political investigations and writings' (Colonial Office, 1837b), and concentrate on his public duties. And as time went on, he displayed an increasing reluctance to provide the reports and accountings required of him, leading to comments about his 'inflexible taciturnity' and 'habitual delay' (Colonial Office, 1842a). What is more, he did not bring about the hoped-for reduction in costs.

### Sustained Interest in Natural History

Despite Thompson's difficulties with his official duties in New South Wales, he continued to show his interest in natural history. Except for the dedication of his *Zoological Researches* to Sir James McGrigor, he had scrupulously kept this interest separate from his life as an army surgeon.

He began optimistically. On 20 April 1836, he wrote to his old acquaintance, Alexander Macleay, the Colonial Secretary, expressing his disappointment at not finding 'the Society'\* flourishing, and his hope that Macleay would re-establish it and name some original members. He also made a number of suggestions about the scope and purpose of a natural history society, recommending a wide membership (Thompson, 1836). It appears that this letter was Thompson's acceptance of an invitation to join 'A Committee of Superintendence of the Australian Museum and Botanical Garden' (*Gazette*, 1836). Macleay became chairman, and Thompson was a member. The minute books of the Committee show that he attended meetings regularly from 1836 to 1843 and was a member of the Sub-Committees for both the Botanical Gardens and the Australian Museum (Australian Museum, 1836.)

Meanwhile, he still found time to look to his scientific reputation and contacts. His letter to Julien Desjardins, President of the Natural History Society, Mauritius, claiming authorship of the *Catalogue of Exotic Plants in Mauritius* has been mentioned already. A letter from the Curator of the Australian Museum records that ten specimens of native birds were given to J. V. Thompson 'for the Mauritius' in 1837 (Australian Museum, 1837). He is also on record in 1839 as having sent cotton seeds to Mauritius in 1838; and the 1840 Annual Report of the Mauritius Natural History Society records that 'Thompson is the only one of our New South Wales correspondents who has not given us up' (Vaughan, 1953). Thompson would have been heartened, too, to find that in 1839 Du Cane, a friend of Macleay, was one of those who had confirmed his observations on the metamorphosis of the Crustacea (Fletcher, 1920).

### Removal from Office

Ever since Thompson had left Cork in 1835 without settling his account with Mrs Dwyer, she had been trying to get her money. Failing in appeals directly to Thompson, she had then unsuccessfully sought to have Sir James McGrigor order Thompson to pay. Getting no satisfaction in that quarter either, on 28 October 1841 she complained to the Secretary of State for the Colonies. It was Thompson's bad luck that her letter arrived only a fortnight after the Secretary of State had been considering Governor Gipps's report on the Mitchell case, and so Thompson's name was fresh in his mind. There is no record to show that Thompson paid the bill, in spite of a fresh instruction to do so.

During 1842, Thompson's neglect in submitting reports and returns became intolerable to his superiors (Colonial Office, 1842b). Finally, in November, he was given six weeks to submit a particular return. When he did not meet the deadline, preliminary steps were taken to replace him (Colonial Office, 1843a). The Governor reported to the Secretary of State, who in his turn asked McGrigor to remove Thompson. By this time it was July 1843. In the letter to McGrigor, the Colonial Office reminded him of Mrs Dwyer's case, saying that 'this renewed proof of that officer's negligence' seemed to call for his suspension from duty (Colonial Office, 1843b).

McGrigor replied that he was already aware of the situation, and recognized the need to act: '. . . for some time back I have had occasion to notice to Mr Thompson many instances of neglect in conducting the public duties and of his rarely performing the duty of inspecting the hospital, but finding this proceeded from greatly impaired

\* Presumably he was referring to the defunct Philosophical Society of Australasia.

health, with mental as well as bodily infirmity, I informed him of my intention . . . of his being placed on the half pay of his rank in the army' (Colonial Office, 1843c).

McGrigor followed up his official letter with a private one to Stephen, his counterpart in the Colonial Office, presumably to make sure that no one proceeded with the idea of suspending Thompson or dismissing him outright, and so cutting off his income: 'The neglect of his duties by Mr Thompson . . . is not unknown to me. I regret to say that for a considerable time back I have had cause to complain of the imperfect manner in which he has performed his duties. I have reason to believe that this has proceeded from the broken down health of Mr Thompson who is no longer equal to the multifarious duties of the responsible situation in which he is placed' (Colonial Office, 1843d).

It is curious that Governor Gipps made no mention of Thompson's deteriorating health, which had been mentioned by Bourke at the end of 1836 but ignored thereafter in despatches from New South Wales. Hence one wonders how McGrigor came to his conclusion that ill health was an important reason for Thompson's poor performance. But the question is academic: Gipps had secured Thompson's removal.

Thompson was allowed to remain in office until his successor arrived in New South Wales (Colonial Office, 1843e). He relinquished his position on 1 February 1844, and his retirement to half pay was gazetted on 11 February (Johnston, 1917).

It should be said in his defence that, despite the problems described above, he survived for almost eight years in a position which had been almost untenable from the outset — more than twice as long as his counterpart in Van Diemens Land, who had taken up duty at the same time and was superseded in 1839. And no one seems to have complained about the quality of the medical service under his regime. In fact, at the end of 1839 Gipps had made a special point of remarking that he had no complaint about the way the 'strictly professional duties of the Medical Department in this Colony are performed' (Colonial Office, 1838b).

Thompson's 'taciturnity' and failing health in the 1840s did not prevent him from returning to his old interest in botany, and four more papers from him on the cultivation of cotton and sugar cane were published in the *Indian Journal of Agriculture* between 1842 and 1845 (Royal Society, 1871).

When Thompson retired, one piece of business with the Colonial Office was still unfinished. On 6 April 1843, having heard of a plan for sending young prisoners from Parkhurst to the colonies for rehabilitation, Thompson wrote another characteristically naive proposal to the Secretary of State for the Colonies. He announced that he had 'just purchased a farm (part of Eagle Farm) about seven miles from Brisbane Town, and [had] at present about 200 acres of clear tillage land'. His scheme was hastily conceived and impracticable. He said he would be 'most happy to try the experiment with from 10 to 20 of the Parkhurst boys . . . [T]hey will be removed from all temptation to steal or pick pockets and will be employed in gardening, assisting the agricultural labourers and vine dressers and in looking after the farm work. My object is to give a fair trial to tropical agriculture and in particular to cotton, sugar cane and coffee in addition to the vine and other colonial productions' (Thompson, 1843).

Perhaps Thompson wanted only to tell someone that he had just bought a property to replace the land his father had lost sixty-five years earlier. Whatever he intended, his plan misfired. It was typical of his luck that his application for Parkhurst boys was considered and rejected just the day before the Secretary of State approved his transfer to half pay. His Lordship remembered the letter, and saw it as just one more proof of Thompson's inattention to his real duties (Colonial Office, 1843f).

Thompson's last official letter is a sad reminder that mail took several months to pass between London and Sydney. A week after Thompson had been retired to half pay, the Governor called for a copy of his letter about the Parkhurst boys. Jno V. Thompson,



Deputy Inspector General, replied on 21 February 1844: 'I have the honor to acknowledge receipt of your communication of the 17th instant (44/14), and regret that I am incapable of supplying the copy of the letter addressed to the Secretary of State of 6th April last, considering it to be a private affair and only a request, which, having been deprived of every means of accepting now by the loss of my appointment, I must of necessity relinquish' (Thompson, 1844).

As far as is known, Thompson remained in Sydney for the next three years, and so did not have a chance to occupy his land at Moreton Bay. He died at his residence in Liverpool Street on 21 January 1847, and was buried in the Parish of St Lawrence, County of Cumberland (Registrar General, 1847). Presumably his grave was in the old Devonshire Street cemetery, now the site of Central Railway Station.

He directed that the monies from his estate should be used in the first instance to pay his debts, and that what remained should be paid to his 'dear wife for her use entirely' (Supreme Court, 1847).

### CONCLUSION

Since his death, John Vaughan Thompson's contribution to natural science has been recognized spasmodically. A crustacean, *Vaunthompsonia*, was named after him, as was a plant from Madagascar, *Deidamia thompsoniana*, though the latter was subsequently given another name. He merits a line in some histories of zoology (Singer, 1959); Lankester (1890) gives him a full paragraph in the Zoology article in *The Advancement of Science*, remarking that 'Thompson made . . . great discoveries, which seem to have fallen in his way in the most simple and natural manner, but must be regarded really as the outcome of extraordinary genius'; and he is the subject of entries in the *Dictionary of National Biography* and the *Dictionary of Scientific Biography* under his own name. His *Zoological Researches* were reissued in a facsimile edition in 1968. It is interesting that the burning issues of his day were not seen by later biographers to be controversial. For instance, metamorphosis in Crustacea, the subject of acrimonious debate in the 1830s, was overlooked by Lankester, and hardly mentioned by Stebbing (1910) in the paper he wrote to mark the centenary of Thompson's election to a Fellowship in the Linnean Society.

Today, however, 140 years after his death, the way he approached natural history is more important than the truths he revealed. He was one of the genuine discoverers in the age when gentleman naturalists played a significant part in scientific inquiry, and even in that he illustrates a point: he shows how hard it was for a man short of money, and working alone, to have his work noticed. Previous biographers have praised his perceptiveness, and shown how his discoveries resulted from acute practical observation. But they have not made enough of his persistence, his solitariness and the disappointments he suffered.

He was a 'difficult' man and yet he was able to make a notable contribution to both botany and zoology. And that is only one side of his life. It is too easy to forget that his eight-year stint in New South Wales, where the odds were against him from the first, was the only blemish on a career in the Army Medical Service spanning forty-five years. On balance, his unhappy inability to get on with people neither cancels out his work as a surgeon nor dulls the brilliance of his lonely scientific achievements.

It is a pity that he was not in England when his discoveries were finally recognized. There he might have been honoured instead of being ignored. The careful obituary in the *Sydney Herald* of 26 January 1847, with no mention of friends and colleagues who appreciated him, emphasizes his loneliness. And it was John Vaughan Thompson's usual luck that the age was wrong. He was in his 68th year, not his 63rd: ' . . . in his 63rd

year, after long-continued illness — distinguished for his achievements in zoology and botany — possessing talents of no common order — and estimable in every relative duty of life — he is deeply lamented by his afflicted family, to whom his loss is irreparable' (*Herald*, 1847).

#### ACKNOWLEDGEMENTS

The Public Records Office, London, has granted permission for reproduction of the Crown Copyright Colonial Office documents quoted in this paper. Acknowledgement is made to the Australian Joint Copying Project of the National Library of Australia and the Library of New South Wales for the microfilm of some of those documents, and to the Archives Office of Tasmania and the State Library of Tasmania for the remainder of the documents and for the facilities for reading all of them; to the Archives Office of New South Wales, the Library of the Australian Museum, the Library of the University of Edinburgh and the Library of the Linnean Society of London for the references ascribed to them below; and to the Archives Office of the Government of Mauritius.

Thanks are due to Guy Rouillard, President of the Historical Society of Mauritius, Gina Douglas, Librarian and Archivist of the Linnean Society of London, P. H. Sooprayen, Chief Archivist, Government of Mauritius, Jo Currie, Library Assistant, Special Collections, University of Edinburgh Library, and Mary Kumvaj, Deputy Librarian, Australian Museum. Each took the trouble to send me more information than I asked for.

#### References

**Key to abbreviations used in the text:** *ADB* = *Australian Dictionary of Biography*, 1967; *DNB* = *Dictionary of National Biography*, 1900; *EB* = *Encyclopedia Britannica*, 1968; Linn. Soc. = Linnean Society of London; Zool. Soc. = Zoological Society of London.

**Key to abbreviations used in the references:** CO xx/xx = Colonial Office Item Numbers; AJCP xx = Numbers of Australian Joint Copying Project Microfilm Reels; *HRA* = Historical Records of Australia volumes. Otherwise standard abbreviations are used for societies and journals.

Since many of the references are to manuscript letters and other records, the references are presented in two parts: Part 1: Published Works and Part 2: Unpublished letters, etc.

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